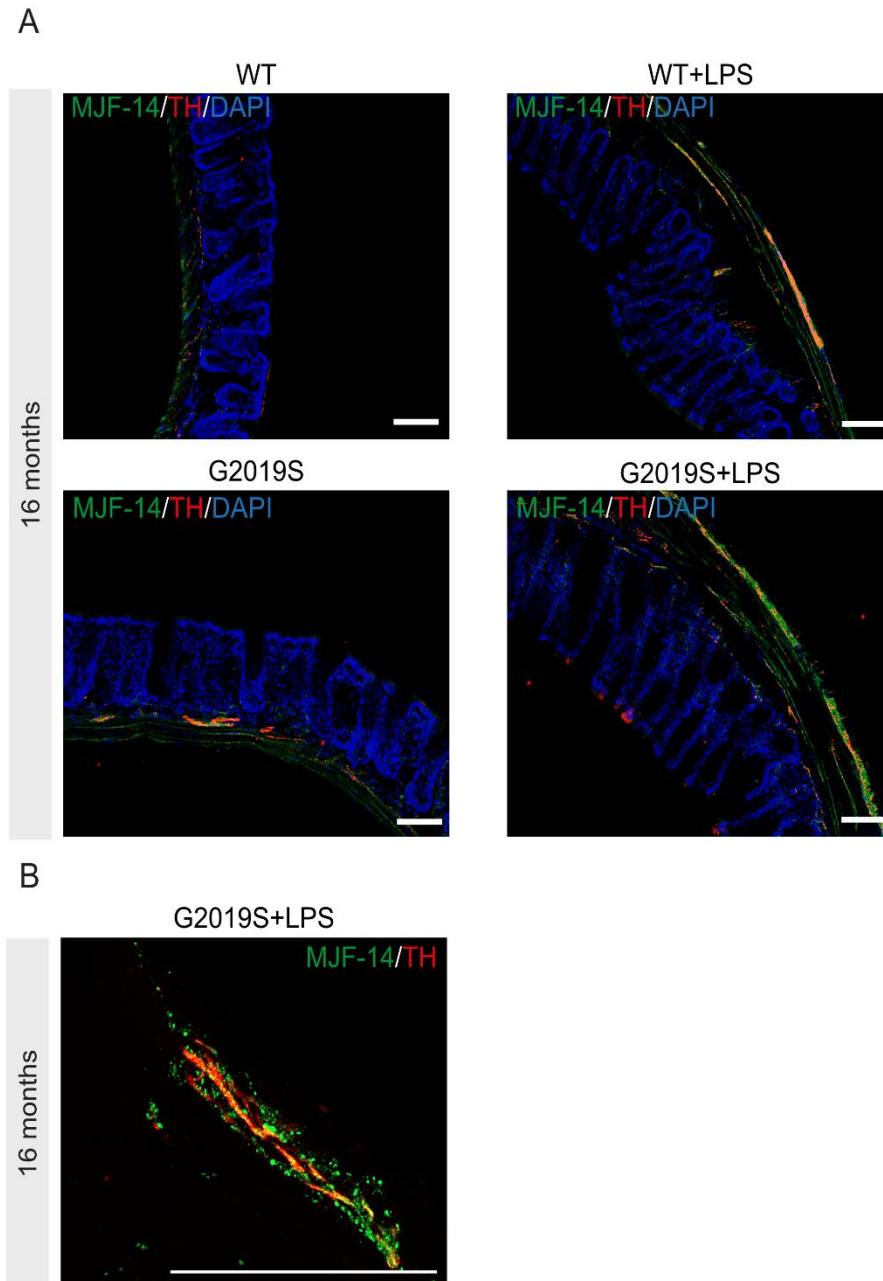


SUPPLEMENTARY DATA

## **Peripheral Immune Challenge Drives Enteric $\alpha$ -Synuclein and Tau Pathology in LRRK2 G2019S Mice**

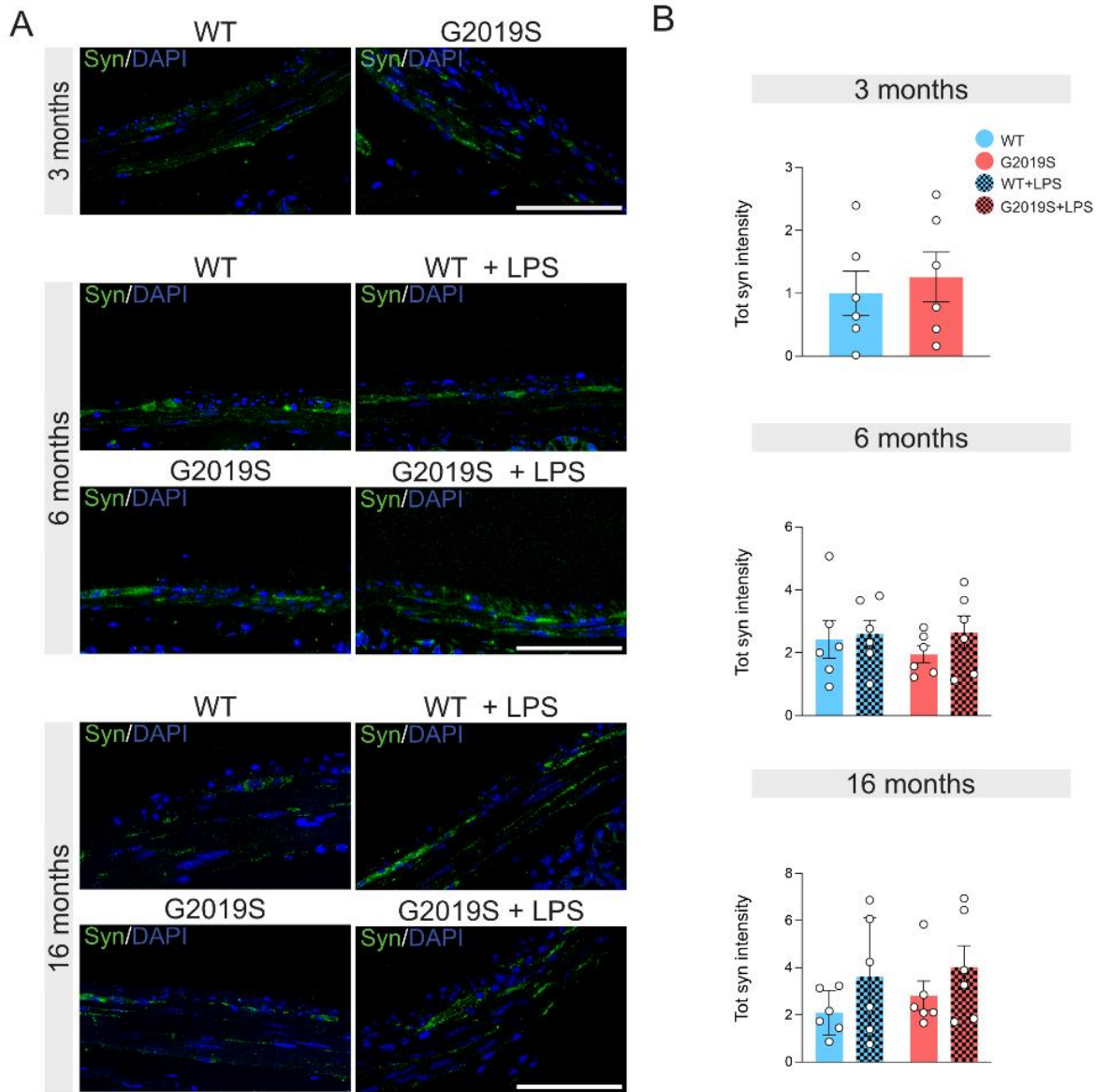
**Carmela Giachino, Federico Bertoli, Cataldo Tirolo, Claudio Giuliano, Marika Mearelli, Meike Jakobi, Nicole Schneiderhan-Marra, Francesca L'Episcopo, Michela Deleidi**

## SUPPLEMENTARY DATA



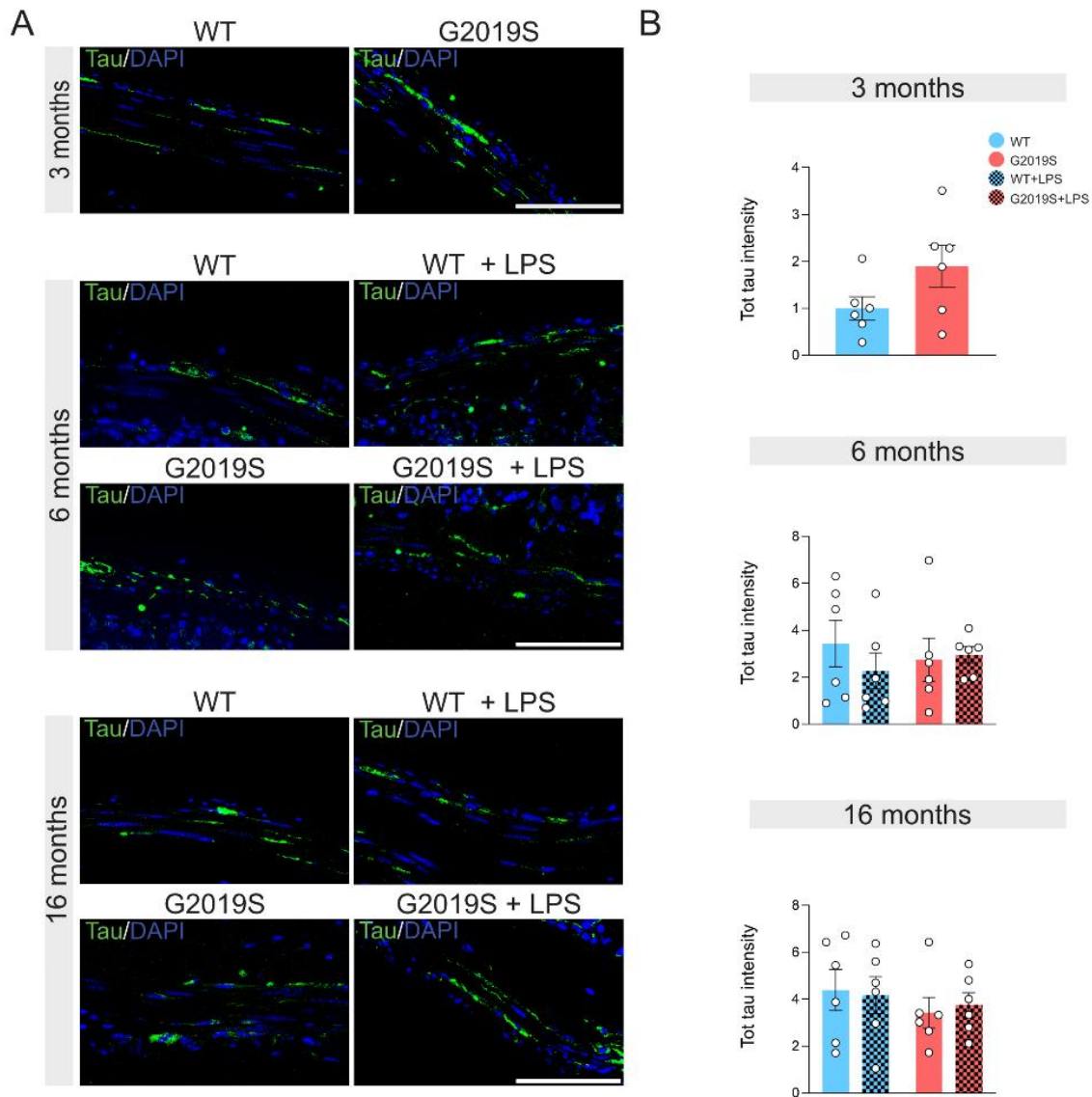
**Supplementary Figure 1. Aggregated  $\alpha$ -synuclein colocalizes with enteric dopaminergic neurons in LRRK2 G2019S mice. (A)** Intestinal cryosections stained for aggregated  $\alpha$ -synuclein (MJF-14, green), TH (red), and DAPI (blue) from WT and G2019S mice treated with LPS or saline at 16 months. **(B)** Intestinal cryosection stained for aggregated  $\alpha$ -synuclein (MJF-14, green) and TH (red) at 63x magnification from G2019S mice treated with LPS. Scale bar = 100  $\mu$ m.

# SUPPLEMENTARY DATA



**Supplementary Figure 2. Total  $\alpha$ -synuclein levels are unchanged across genotypes and treatment conditions.** (A) Representative images of total  $\alpha$ -synuclein immunostaining in colonic sections from WT and LRRK2 G2019S mice under basal conditions (3 months) and at 6 and 16 months of age following saline or LPS treatment. Scale bar = 100  $\mu$ m. (B) Quantification of total  $\alpha$ -synuclein immunoreactivity shows no significant differences across genotypes or treatment conditions. Data are normalized to baseline control and presented as mean  $\pm$  SEM. Quantification was performed from at least four fields per section; n = 6 mice per group.

## SUPPLEMENTARY DATA



**Supplementary Figure 3. Total tau levels are unchanged across genotypes and treatment conditions.** (A) Representative images of total tau immunostaining in colonic sections from WT and LRRK2 G2019S mice under basal conditions (3 months) and at 6 and 16 months of age following saline or LPS treatment. Scale bar = 100  $\mu$ m. (B) Quantification of total tau immunoreactivity shows no significant differences across genotypes or treatment conditions. Data are normalized to baseline control and presented as mean  $\pm$  SEM. Quantification was performed from at least four fields per section; n = 6 mice per group.

# SUPPLEMENTARY DATA